

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A method comprising:
  - a. receiving a message formatted according to Abstract Syntax Notation One (ASN.1); and
  - b. decoding the received message based on a previously stored configuration information file (CIF).
2. The method of Claim 1, wherein the received message is formatted according to an ASN.1 compatible encoding rule.
3. The method of Claim 1, wherein the CIF includes schema of the ASN.1 formatted message.
4. The method of Claim 3, wherein the CIF further includes a means for defining new messages without updating associated operational software.
5. The method of Claim 1, further comprising:
  - c. encoding a message formatted according to ASN.1, wherein encoding is based on the CIF; and
  - d. transmitting the encoded message.
6. The method of Claim 5, wherein encoding the message is performed according to an ASN.1 compatible encoding rule.
7. The method of Claim 5, wherein a-d are performed on an aircraft.
8. The method of Claim 7, wherein transmitting and receiving are performed according to a datalink protocol.

9. The method of Claim 8, wherein the datalink protocol includes an aeronautical datalink protocol.

10. A system comprising:  
a means for receiving a message formatted according to Abstract Syntax Notation  
5 One (ASN.1);  
a memory for storing and accessing a configuration information file (CIF); and  
a means for decoding the received message based on the stored CIF.

11. The system of Claim 10, wherein the received message is formatted according to an ASN.1 compatible encoding rule.

10 12. The system of Claim 10, wherein the CIF includes schema of the ASN.1 formatted message.

13. The system of Claim 12, wherein the CIF further includes a means for defining processing of a message without updating associated operational software.

14. The system of Claim 10, further comprising:  
15 a means for encoding a message formatted according to ASN.1, wherein encoding is based on the CIF; and  
a means for transmitting the encoded message.

15. The system of Claim 14, wherein the means for encoding encodes the message according to an ASN.1 compatible encoding rule.

20 16. The system of Claim 14, wherein the system is located on an aircraft.

17. The system of Claim 16, wherein transmitting and receiving are performed according to a datalink protocol.

18. The system of Claim 17, wherein the datalink protocol includes an aeronautical datalink protocol.

19. A system comprising:

- a receiver configured to receive a message formatted according to Abstract Syntax Notation One (ASN.1) using an ASN.1 compatible encoding rules;
- 5 a memory configured to store a configuration information file (CIF); and
- a processor coupled to the receiver and the memory, the processor being configured to decode the received message based on the stored CIF.

20. The system of Claim 19, wherein the ASN.1 compatible encoding rule includes at least one of Basic Encoding Rules (BER) or Packed Encoding Rules (PER).

21. The system of Claim 19, wherein the CIF includes schema of the ASN.1 formatted message.

22. The system of Claim 21, wherein the CIF further includes a means for defining processing of a message without updating associated operational software.

23. The system of Claim 19, wherein the processor comprises a component configured to encode a message formatted according to ASN.1 based on the CIF.

24. The system of Claim 23, further comprising a transmitter configured to transmit the encoded message.

25. The system of Claim 23, wherein the component configured to encode encodes the message according to an ASN.1 compatible encoding rule.

26. The system of Claim 19, wherein the system is located on an aircraft.

27. The system of Claim 26, wherein the receiver and transmitter perform data reception and transmission according to a datalink protocol.

28. The system of Claim 27, wherein the datalink protocol includes an aeronautical datalink protocol.

5 29. The system of Claim 27, wherein the datalink protocol includes the Transmission Control Protocol/Internet Protocol (TCP/IP).

30. A method comprising:

- a. encoding a message formatted according to ASN.1, wherein encoding is based on a previously stored configuration information file (CIF); and
- 10 b. transmitting the encoded message.

31. The method of Claim 30, wherein encoding the message is performed according to an ASN.1 compatible encoding rule.

32. The method of Claim 30, wherein a and b are performed on an aircraft.

33. The method of Claim 32, wherein transmitting and receiving are performed  
15 according to a datalink protocol.

34. The method of Claim 33, wherein the datalink protocol includes an aeronautical datalink protocol.

35. A system comprising:

- a means for encoding a message formatted according to ASN.1, wherein encoding
- 20 is based on a previously stored configuration information file (CIF); and
- a means for transmitting the encoded message.

36. The system of Claim 35, wherein the means for encoding encodes the message according to an ASN.1 compatible encoding rule.

37. The system of Claim 35, wherein the system is located on an aircraft.

38. The system of Claim 37, wherein transmitting and receiving are performed  
5 according to a datalink protocol.

39. The system of Claim 38, wherein the datalink protocol includes an aeronautical datalink protocol.